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EXAMINER

BEISNER, WILLIAM H

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/811,668

Applicant(s)

VANMAELE ET AL.

Examiner

William H. Beisner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 August 2005 and 17 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9, 13, 15-38 and 59-63 is/are pending in the application.
- 4a) Of the above claim(s) 15-21, 24-38 and 59-63 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/5/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/5/2005 has been entered.

### ***Election/Restrictions***

2. Applicant's election without traverse of Group I, Claims 1-9, 13, 22 and 23, in the reply filed on 1/17/2006 is acknowledged.

3. Claims 15-21, 24-38 and 59-63 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 1/17/2006.

### ***Information Disclosure Statement***

4. The information disclosure statement filed 8/5/2005 has been considered and made of record.

### ***Claim Rejections - 35 USC § 103***

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisconte (US 4,883,642) in view of Turner et al.(US 5,958,345) and Brown et al.(WO 98/47003).

The reference of Bisconte discloses a ribbon (web) of material which includes a plurality of microwells (20) for holding a plurality of samples to be analyzed by an automated device.

The instant claims differ by reciting that the plurality of microwells on the web material are formed by a bottom surface and an upstanding surface wherein the bottom surface and upstanding surface are of different hydrophilicity.

The reference of Turner et al. discloses that while it is known in the art to form a plurality of microwells using concave impressions (the wells of Bisconte), these webs or films are difficult because the films are easily torn or punctured (See column 2, lines 64-67). The reference of Turner et al. as a solution to this problem forms a plurality of microwells using a substrate of one material which is covered by a substrate of a second material. Any areas of the first material which are exposed provide sample-holding zones (See column 3, lines 37-54).

The reference of Brown et al. is cited as evidence that sample holding zones of the volumes required of the reference of Bisconte et al. can be formed using zones of hydrophobic and hydrophilic materials. The reference of Brown et al. discloses that the chambers (30) have a depth of about 0.05mm and volumes of 10 nanoliters can be achieved (See page 31, lines 20-24).

In view of these teachings, it would have been obvious to one of ordinary skill in the art to form the sample holding wells of the primary reference using the coating method suggested by the reference of Turner et al. for the known and expected result of avoiding the difficulties associated with the method of forming wells as employed by the reference of Bisconte and discussed by the reference of Turner et al.

With respect to the list of possible materials recited in claim 1, the reference of Turner et al. discloses that silicates (flexible glass) can be employed (See column 3, lines 62-63) and that a preferred material is polyimide (See column 6, lines 51-52).

With respect to the limitations of claims 2 and 6, these claims differ by reciting the depth of the surface layer and the volume of the wells formed on the substrate.

The reference of Brown et al. discloses a substrate device with sample holding wells which is similar to that of the reference of Turner et al. The reference of Brown et al. discloses that the chambers (30) have a depth of about 0.05mm and volumes of 10 nanoliters can be achieved (See page 31, lines 20-24).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to determine the optimum depth and/or volume of the sample holding chambers based merely on the specifics of the test to be performed and the required amount of sample and/or reagents while maintaining the efficiency of the detection system.

With respect to the limitation of claim 3, the reference of Turner et al. discloses the use of plasma treatment to change or increase the hydrophilicity of a material (See Column 4, lines 63-64). As a result, it would have been obvious to one of ordinary skill in the art to employ plasma treatment on the sample holding substrate to improve hydrophilicity as suggested by the reference of Turner et al. and thereby improving the sample retention abilities of the sample substrate.

With respect to claims 4 and 5, while the reference of Bisconte discloses a ribbon with a plurality of wells, the reference is silent as to the number of wells and/or length to width ration of the ribbon. However, it would have been obvious to one of ordinary skill in the art to determine the optimum number of microwells to provide on the ribbon based merely on the desired number of samples to be analyzed while minimizing the number of time the roll must be replaced on the device. It the length-to-width ratio is not inherently greater than 20, again, based merely on the

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desired number of samples to be analyzed while minimizing the number of times the roll needs to be changed, it would have been obvious to one of ordinary skill in the art to provide a length of web material which minimizes the changing of the rolls while maintains the operating efficiency of the system.

With respect to claim 7, the reference Bisconte discloses the use of data storage tracks (2) on the ribbon device.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bisconte (US 4,883,642) in view of Turner et al.(US 5,958,345) and Brown et al.(WO 98/47003) taken further in view of Odernheimer (US 5,216,925).

The combination of the references of Bisconte, Turner et al. and Brown et al. has been discussed above.

The above claims differs by reciting that the web has barcodes.

The reference of Odernheimer discloses that the use of barcodes on a web of material is known in the art (See Figure 1(a), element 11).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to employ a barcode rather than a magnetic data storage for the known and expected result of providing an alternative means recognized in the art to achieve the same result.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bisconte (US 4,883,642) in view of Turner et al.(US 5,958,345) and Brown et al.(WO 98/47003) taken further in view of Ishizaka et al.(US 5,077,010).

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The combination of the references of Bisconte, Turner et al. and Brown et al. has been discussed above.

The above claim differs by reciting that the web includes an identifier at the beginning and/or the end of the web.

The reference of Ishizaka et al. discloses an analytical device which employs a web of test material and provides the web of material with a leader indicator (See Figure 48).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the web material of the primary reference with a leader indicator for the known and expected result of providing the web with information which can be used by the automated system when the web is fed into the system.

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bisconte (US 4,883,642) in view of Turner et al.(US 5,958,345) and Brown et al.(WO 98/47003) taken further in view of Richardson (US 3,615,437) and Birch (US 6,020,026).

The combination of the references of Bisconte, Turner et al. and Brown et al. has been discussed above.

The above claim differs by reciting that the substrate is a flexible metal oxide (aluminum oxide).

The reference of Richardson et al. discloses that aluminum oxide is a known hydrophilic material employed in the printing art (See column 2, lines 1-5).

The reference of Birch et al. discloses that methods of forming printing plates can be applied to the microwell plate manufacturing art (See the abstract).



In view of these teachings, it would have been obvious to one of ordinary skill in the art to employ aluminum oxide coated aluminum foil as the substrate material for the known and expected result of providing an alternative material known in the art for providing a hydrophilic surface upon which a hydrophobic layer may be patterned to form an area of hydrophobic and hydrophilic surfaces.

12. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisconte (US 4,883,642) in view of Turner et al.(US 5,958,345) and Brown et al.(WO 98/47003) taken further in view of either Chateau (US 4,071,315) or Kolehmainen et al.(US 4,349,510).

The combination of the references of Bisconte, Turner et al. and Brown et al. has been discussed above.

While the reference of Bisconte involves the analysis of biological samples on a web material and discusses the use of the web material in combination with an automated system (See column 9, lines 19-55), the reference is silent as to the structure of the automated system.

The reference of Chateau discloses a testing system which includes an unwinding roll (2), an application zone (25,28,32,33), a screening zone (36); and a transport mechanism (16) for transporting a web material from the holder to the application and screening zones.

The reference of Kolehmainen et al. discloses a testing system which includes an unwinding roll (1), an application zone (7,8,9), a screening zone (12); and a transport mechanism (2,21) for transporting a web material from the holder to the application and screening zones.

In view of the disclosure of Bisconte and the disclosure of either the reference of Chateau or Kolehmainen et al., it would have been obvious to one of ordinary skill in the art to employ

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the web material of the modified primary reference in either of the systems of the references of Chateau or Kolehmainen et al. for the known and expected result of providing an alternative means recognized in the art for moving a web material with a plurality of sample zones past a number of processing and/or analysis stations during use of the web material.

### *Double Patenting*

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 1-9, 13, 22 and 23 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-10, 14 and 16-20 of U.S. Patent No. 6,783,735 in view of Turner et al.(US 5,958,345) and Brown et al.(WO 98/47003).

Claims 1, 3-10, 14 and 16-20 of U.S. Patent No. 6,783,735 encompasses a web device that is substantially the same as that recited in claims 1-9, 13, 16, 19, 21, 22 and 23 of the instant application.

The instant claims differ by reciting a list of possible materials of construction of the web substrate.

With respect to the list of possible materials recited in claim 1, the reference of Turner et al. discloses that silicates (flexible glass) can be employed (See column 3, lines 62-63) and that a preferred material is polyimide (See column 6, lines 51-52).

The reference of Brown et al. is cited as evidence that sample holding zones of the volumes required of the reference of Bisconte et al. can be formed using zones of hydrophobic and hydrophilic materials. The reference of Brown et al. discloses that the chambers (30) have a depth of about 0.05mm and volumes of 10 nanoliters can be achieved (See page 31, lines 20-24).

In view of these teachings and in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the web substrate of any of the materials suggested by the reference of Turner et al. for the known and expected result of employing an art recognized material to construct the web substrate encompassed by the patented claims.

#### ***Response to Arguments***

15. With respect to the rejection of Claims 1, 3, 4, 5 and 7 under 35 U.S.C. 103(a) as being unpatentable over Bisconte (US 4,883,642) in view of Turner et al.(US 5,958,345), Applicants

argue (See pages 20-27 of the response filed 8/5/2005) that the rejection is improper for the following reasons:

The teachings of the reference of Turner et al. are taken out of context and the combination of the references of Bisconte et al. and Turner et al is considered hindsight because there is a lack of motivation for the combination. Applicants also argue that the teachings of Bisconte et al. and Turner et al. are incongruent. To support these positions Applicants first stress that the reference of Bisconte et al. is drawn to a holder suitable for holding, processing, storing and analyzing biological samples. Applicants stress that the reference of Turner et al. is specific to a thin film sample support for x-ray fluorescence analysis. Applicants stress that the reference of Turner et al. is not referencing the device of Bisconte but his own device. As a result, Applicants stress that Turner et al. teaches against the use of concave impressions due to their propensity to be easily torn or punctured and therefore leads one to avoid using any impression. Finally Applicants stress that the device of Turner et al. involves volumes and dimensions that are not sufficient to perform the methods required of the device of Bisconte et al. and/or the instant invention.

In response, Applicants' comments are not found to be persuasive for the following reasons:

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the

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applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case, the reference of Bisconte et al. discloses the use of a web of material for holding a plurality of samples wherein the sample holding chambers are formed by molded indentations. The reference of Turner et al. discloses an alternative means in the art for holding a plurality of samples by forming hydrophobic and hydrophilic zones on a substrate. The reference of Turner et al. even suggests that this manner is advantageous over the use of indentations as is employed by the reference of Bisconte et al. As a result, one of ordinary skill in the art would have recognized that the sample holding zones of the reference of Bisconte et al. could be formed by hydrophobic/hydrophilic zones rather than indentations as an alternative means recognized in the art to achieve the same result.

The Examiner would also like to point out that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, one of ordinary skill in the art would not be lead to bodily incorporate the dimensions of the reference of Turner et al. in the structure of the primary reference of Bisconte et al. but would have been lead to employ the use of hydrophilic and hydrophobic zones on a web material for the known and expected result of forming sample chambers sufficient in size for performing the method of Bisconte et al. not the method of Turner et al. as argued by Applicants.

The Examiner would like to also point out that the prior art rejection of record is based on the device and method of use as disclosed in the primary reference of Bisconte et al. The reference of Turner et al. is relied upon as a secondary reference that conveys to one of ordinary skill in the art that sample holding zones can be formed on a substrate or web using hydrophilic and hydrophobic zones as an alternative means to forming zone by indentations as employed by the reference of Bisconte et al. The modification suggested by the prior art would be to the reference Bisconte et al. Specifically, the modification would be to form wells for holding sample volumes required of the reference of Bisconte et al. not to perform the method disclosed by the reference of Turner et al. As evidenced by the reference of Brown et al., one of ordinary skill in the art would recognize that sample holding volumes greater than those required of the method of Turner et al. can be formed using hydrophilic and hydrophobic zones. Applicants' arguments appear to limit the knowledge of skill in the art to the scale of the reference of Turner et al. Apparently Applicants feel that one of ordinary skill would not be capable of forming sample holding well of any other volume or size than that specifically disclosed by the reference of Turner et al. even when provided with the disclosure of the reference of Bisconte et al. and/or the reference of Brown et al.

With respect to claim 3, Applicants argue that the reference of Turner et al. does not teach a microwell.

In response, for the reasons advanced above with respect to claim 1, the Examiner is of the position that the combination of the references of Bisconte et al. and Turner et al. is proper and would have been well within the purview of one having ordinary skill in the art.

With respect to Applicants' comments concerning claims 4, 5 and 7, as recited previously, the Examiner would also like to point out that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

16. With respect to the rejection of Claims 2 and 6 under 35 U.S.C. 103(a) as being unpatentable over Bisconte (US 4,883,642) in view of Turner et al.(US 5,958,345) taken further in view of Brown et al.(WO 98/47003), Applicants argue (See pages 27-30 of the response filed 8/5/2005) that the rejection is improper because the reference of Brown involves a well depth of 50 microns while the reference of Turner et al. only employs a well depth of 0.35 microns. Using a thicker well would destroy the intended use of the device of Turner et al.

In response, the prior art rejection of record is based on the device and method of use as disclosed in the primary reference of Bisconte et al. The reference of Turner et al. is relied upon as a secondary reference that conveys to one of ordinary skill in the art that sample holding zones can be formed on a substrate or web using hydrophilic and hydrophobic zones as an alternative means to forming zone by indentations as employed by the reference of Bisconte et al. The modification suggested by the prior art would be to the reference Bisconte et al. Specifically, the modification would be to form wells for holding sample volumes required of the reference of Bisconte et al. not to perform the method disclosed by the reference of Turner et al. As

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evidenced by the reference of Brown et al., one of ordinary skill in the art would recognize that sample holding volumes greater than those required of the method of Turner et al. can be formed using hydrophilic and hydrophobic zones. Applicants' arguments appear to limit the knowledge of skill in the art to the scale of the reference of Turner et al. Apparently Applicants feel that one of ordinary skill would not be capable of forming sample holding well of any other volume or size than that specifically disclosed by the reference of Turner et al. even when provided with the disclosure of the reference of Bisconte et al. and/or the reference of Brown et al.

17. With respect to the rejection of Claim 8 under 35 U.S.C. 103(a) as being unpatentable over Bisconte (US 4,883,642) in view of Turner et al.(US 5,958,345) taken further in view of Odenheimer (US 5,216,925), Applicants argue (See pages 31-32 of the response filed 8/5/2005) that the rejection is improper because one of ordinary skill in the art would not be capable of physically incorporating a barcode into the device of Turner et al.

In response, the prior art rejection of record is based on the device and method of use as disclosed in the primary reference of Bisconte et al. The reference of Turner et al. is relied upon as a secondary reference that conveys to one of ordinary skill in the art that sample holding zones can be formed on a substrate or web using hydrophilic and hydrophobic zones as an alternative means to forming zone by indentations as employed by the reference of Bisconte et al. The modification suggested by the prior art would be to the reference Bisconte et al. Specifically, the modification would be to form wells for holding sample volumes required of the reference of Bisconte et al. not to perform the method disclosed by the reference of Turner et al and to



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provide the modified device of Bisconte et al. with barcodes not the device of the reference of Turner et al.

18. With respect to the rejection of Claim 9 under 35 U.S.C. 103(a) as being unpatentable over Bisconte (US 4,883,642) in view of Turner et al.(US 5,958,345) taken further in view of Ishizaka et al.(US 5,077,010), Applicants argue (See pages 33-34 of the response filed 8/5/2005) that the rejection is improper because one of ordinary skill in the art would not be capable of physically incorporating magnetic recording layer into the device of Turner et al.

In response, the prior art rejection of record is based on the device and method of use as disclosed in the primary reference of Bisconte et al. The reference of Turner et al. is relied upon as a secondary reference that conveys to one of ordinary skill in the art that sample holding zones can be formed on a substrate or web using hydrophilic and hydrophobic zones as an alternative means to forming zone by indentations as employed by the reference of Bisconte et al. The modification suggested by the prior art would be to the reference Bisconte et al. Specifically, the modification would be to form wells for holding sample volumes required of the reference of Bisconte et al. not to perform the method disclosed by the reference of Turner et al and to provide the modified device of Bisconte et al. with a magnetic recording layer not the device of the reference of Turner et al.

19. With respect to the rejection of Claim 13 under 35 U.S.C. 103(a) as being unpatentable over Bisconte (US 4,883,642) in view of Turner et al.(US 5,958,345) taken further in view of Richardson (US 3,615,437) and Birch (US 6,020,026), Applicants argue (See pages 37-38 of the

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response filed 8/5/2005) that if a metal oxide layer is considered then the reference of Turner et al. cannot also be considered.

In response, the prior art rejection of record is based on the device and method of use as disclosed in the primary reference of Bisconte et al. The reference of Turner et al. is relied upon as a secondary reference that conveys to one of ordinary skill in the art that sample holding zones can be formed on a substrate or web using hydrophilic and hydrophobic zones as an alternative means to forming zone by indentations as employed by the reference of Bisconte et al. The modification suggested by the prior art would be to the reference Bisconte et al. Specifically, the modification would be to form wells for holding sample volumes required of the reference of Bisconte et al. not to perform the method disclosed by the reference of Turner et al. As evidenced by the reference of Brown et al., one of ordinary skill in the art would recognize that sample holding volumes greater than those required of the method of Turner et al. can be formed using hydrophilic and hydrophobic zones. Applicants' arguments appear to limit the knowledge of skill in the art to the scale of the reference of Turner et al. Apparently Applicants feel that one of ordinary skill would not be capable of forming sample holding well of any other volume or size than that specifically disclosed by the reference of Turner et al. even when provided with the disclosure of the reference of Bisconte et al. and/or the reference of Brown et al. The Examiner is of the position that one of ordinary skill in the art would have recognized in view of the prior art teachings that other materials that are capable of forming hydrophobic and hydrophilic zones on a flexible material can be used and are not limited to the material of the reference of Turner et al.

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20. With respect to the rejection of Claims 22 and 23 under 35 U.S.C. 103(a) as being unpatentable over Bisconte (US 4,883,642) in view of Turner et al.(US 5,958,345) taken further in view of either Chateau (US 4,071,315) or Kolehmainen et al.(US 4,349,510), Applicants argue (See pages 38-39 of the response filed 8/5/2005) that the rejection is improper because the reference of Kolehmainen involves a well depth of 1 to 24 mm while the reference of Turner et al. only employs a well depth of 0.35 microns.

In response, the prior art rejection of record is based on the device and method of use as disclosed in the primary reference of Bisconte et al. The reference of Turner et al. is relied upon as a secondary reference that conveys to one of ordinary skill in the art that sample holding zones can be formed on a substrate or web using hydrophilic and hydrophobic zones as an alternative means to forming zone by indentations as employed by the reference of Bisconte et al. The modification suggested by the prior art would be to the reference Bisconte et al. Specifically, the modification would be to form wells for holding sample volumes required of the reference of Bisconte et al. not to perform the method disclosed by the reference of Turner et al. As evidenced by the reference of Brown et al., one of ordinary skill in the art would recognize that sample holding volumes greater than those required of the method of Turner et al. can be formed using hydrophilic and hydrophobic zones. Applicants' arguments appear to limit the knowledge of skill in the art to the scale of the reference of Turner et al. Apparently Applicants feel that one of ordinary skill would not be capable of forming sample holding well of any other volume or size than that specifically disclosed by the reference of Turner et al. even when provided with the disclosure of the reference of Bisconte et al. and/or the reference of Brown et al.

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21. With respect to the rejection of Claims 1-9, 13, 22 and 23 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3-10, 14 and 16-20 of U.S. Patent No. 6,783,735, Applicants argue (See pages 45-46 of the response filed 8/5/2005) that the rejection is improper because the patented claims are not properly combinable with the teaching of Turner et al. for the same reasons as set forth with respect to the combination of the references of Bisconte et al. and Turner et al.

In response, Applicants' comments are not found to be persuasive for the same reasons as set forth above with respect to the combination of the references of Bisconte et al. and Turner et al.

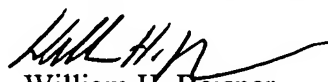
### ***Conclusion***

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Beisner whose telephone number is 571-272-1269. The examiner can normally be reached on Tues. to Fri. and alt. Mon. from 6:15am to 3:45pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys J. Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William H. Beisner  
Primary Examiner  
Art Unit 1744

WHB